WHAT IS CLAIMED IS:

1. Single input power control apparatus for controlling a powerplant, comprising:

an input means for generating a output power command; and

a processor, coupled to said input means, for (i) receiving the generated output power command, (ii) receiving a plurality of detected ambient air conditions, (iii) receiving a plurality of detected powerplant performance parameters, (iv) determining first and second powerplant control commands based on the received output power command, the detected ambient air conditions, and the powerplant performance parameters, and (v) outputting first and second output signals respectively corresponding to the first and second powerplant control commands.

2. Apparatus according to Claim 1, wherein said detected ambient air conditions include humidity and air pressure.

3. Apparatus according to Claim 1, wherein said first powerplant control command comprises a powerplant speed command, and wherein said second powerplant control command comprises a powerplant load command.

4. Apparatus according to Claim 3, wherein said powerplant load command comprises a manifold air pressure command.

5. Apparatus according to Claim 4, wherein said powerplant speed command comprises a gear box RPM command.

6. Apparatus according to Claim 5, wherein said plurality of detected engine performance parameters include gear box RPM and manifold air pressure.

7. Apparatus according to Claim 1, wherein said processor (i) stores plural sets of first and second powerplant control parameters which yield highest output power efficiency for detected ambient air conditions and output power commands, and (ii) selects the one set of first and second powerplant control commands which corresponds to the detected ambient air conditions and the received output power command.

8. A wind turbine control apparatus comprising:

a propeller coupled to an electrical generator;

a load coupled to said electrical generator for the transmission of electricity;

a processor, coupled to said wind turbine, for (i)receiving a plurality of detected ambient air conditions, (ii)receiving a plurality of detected wind turbine performance parameters, (iii) determining a control command based on the detected ambient air conditions, and the wind turbine performance parameters, and (iv) outputting a control signal corresponding to the control command.

9. The apparatus of Claim 8, further comprising a pitch servo for (i) receiving said control signal, and (ii) changing the pitch of said propeller corresponding to the control command.

10. The apparatus of Claim 8, further comprising a variable speed gear box for (i) receiving said control signal, and (ii) changing the rotational speed of said propeller corresponding to the control command.

11. The apparatus of Claim 8, further comprising a load shedding means coupled to said generator for (i) receiving the control signal (ii) varying the load coupled to said generator to optimize the performance of the wind turbine.

12. Apparatus according to Claim 8, wherein said processor (i) stores plural sets of wind turbine control parameters which yield highest output power efficiency for detected ambient air conditions and (ii) selects the one set of control commands which corresponds to the detected ambient air conditions.

13. Single input power control apparatus for controlling a ground vehicle, comprising:

an input means for generating a output power command; and

a processor, coupled to said input means, for (i) receiving the generated output power command, (ii) receiving a plurality of detected ambient air conditions, (iii) receiving a plurality of detected engine performance parameters, (iv) determining first and second engine control commands based on the received output power command, the detected ambient air conditions, and the engine performance parameters, and (v) outputting first and second output signals respectively corresponding to the first and second engine control commands.

14. Apparatus according to Claim 13, wherein said detected ambient air conditions include ground speed and air pressure.

15. Apparatus according to Claim 13, wherein said first engine control command comprises an engine speed command, and wherein said second engine control command comprises an engine load command.

16. Apparatus according to Claim 15, wherein said engine load command comprises a manifold air pressure command.

17. Apparatus according to Claim 16, wherein said engine speed command comprises a gear box RPM command.

18. Apparatus according to Claim 17, wherein said plurality of detected engine performance parameters include gear box RPM and manifold air pressure.

19. Apparatus according to Claim 13, wherein said processor (i) stores plural sets of first and second engine control parameters which yield highest output power efficiency for detected ambient air conditions and output power commands, and (ii) selects the one set of first and second engine control commands which corresponds to the detected ambient air conditions and the received output power command.